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# INTERNATIONAL STANDARD

# ISO 12647-5

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## Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints —

### Part 5: Screen printing

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*Technologie graphique — Contrôle du processus de confection de  
sélections couleurs tramées, d'épreuves et de tirages —*

*Partie 5: Sérigraphie*

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## ISO 12647-5:2001(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 12647 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12647-5 was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

ISO 12647 consists of the following parts, under the general title *Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints*:

- *Part 1: Parameters and measurement methods*
- *Part 2: Offset lithographic processes* [SIST ISO 12647-5:2002](https://standards.iteh.ai/catalog/standards/sist/6a37fb40-ae09-4d16-b67d-2e2873077529/sist-iso-12647-5-2002)
- *Part 3: Coldset offset lithography and letterpress on newsprint*
- *Part 4: Publication gravure process*
- *Part 5: Screen printing*
- *Part 6: Flexographic printing*
- *Part 7: Processes using digital printing or reproductions made on various traditional printing processes from digital files*

Annex A of this part of ISO 12647 is for information only.

## Introduction

When producing a half-tone colour reproduction it is important that the colour separator, proofer and printer have previously specified a minimum set of parameters that uniquely define the visual characteristics and other technical properties of the planned print product. Such an agreement enables the correct production of suitable separations (without recourse to “trial and error”) and subsequent production of off-press or on press proof prints from these separations whose purpose is to simulate the visual characteristics of the finished print product as closely as possible.

It is necessary to distinguish between primary and secondary parameters. Whereas primary parameters, which are described in this part of ISO 12647, are defined here as having a direct bearing on the visual characteristics of the image, secondary parameters only influence the image indirectly by changing the values of primary parameters. Secondary parameters include:

- colour separation film thickness;
- film polarity (negative or positive);
- roughness of the emulsion surface;
- presence of colour marking or register marks.

It is the purpose of ISO 12647-1 to list and explain the minimum set of process parameters required to uniquely define the visual characteristics and related technical properties of a half-tone proof or production print produced from a set of half-tone separation films.

[SIST ISO 12647-5:2002](https://standards.iteh.ai/catalog/standards/sist/6a37fb40-ae09-4d16-b67d-4e3873077522/iso-12647-5-2002)

It is the purpose of this part of ISO 12647 to list suggested values or sets of values of the primary parameters specified in ISO 12647-1 and related technical properties of a half-tone screen print produced from a set of half-tone colour separation films. Secondary parameters are also recommended for specification where deemed useful.

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# Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints —

## Part 5: Screen printing

### 1 Scope

This part of ISO 12647 specifies a number of process parameters and their values to be applied when preparing colour separations for four-colour screen process printing when producing four-colour proof and production prints by flat bed or cylinder screen printing.

The parameters and values are chosen in view of the complete process covering the following process stages:

- colour separation,
- making of the printing forme,
- proof production,
- production printing,
- surface finishing.

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### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 12647. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 12647 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 5-3, *Photography — Density measurements — Part 3: Spectral conditions*

ISO 2846-4, *Graphic technology — Colour and transparency of printing ink sets for four-colour printing — Part 4: Screen printing*

ISO 12637-5, *Graphic technology — Multilingual terminology of printing arts — Part 5: Screen printing terms*

ISO 12647-1:1996, *Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints — Part 1: Parameters and measurement methods*

ISO 13655, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images*

### 3 Terms and definitions

For the purposes of this part of ISO 12647, the terms and definitions given in ISO 12647-1 and ISO 12647-5 apply.